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Growing up I was very much interested in sports like all the other children of my age. However, injury limited my ability to perform and I always had problems with my knee. This created an interest in the human body and medicine and when I completed school I decided to enrol in a medical degree. During my studies I became particularly interested in research that related to the musculoskeletal system of the human body and I was able to join a prestigious research

group in Menzies Research Institute Tasmania for my PhD research project.

Osteoarthritis is the most common joint disorder in adults around the world and nearly one in three older adults is affected by knee osteoarthritis. It is a debilitating disease that results in deterioration of knee structures for which there is no cure. Therefore prevention is paramount. The research that I am currently doing towards my PhD aims to determine whether physical activity, injury, fitness and fatness in childhood are related to knee joint structure and function in young adulthood.

In 1985 there was a group of school students who underwent physical activity and fitness measurements as part of the Australian Schools Health and Fitness Survey. These students were contacted again 25 years later and asked to undergo knee MRI scans. When we studied these scans and compared them to the data that we had from their childhood, we found that children with higher fitness levels have a better chance of becoming adults with good knee cartilage regardless of adult fitness levels. We also found that childhood overweight measures were linked to higher knee pain in adulthood independent of their adulthood weight status. These are very interesting results!

Using my research to identify risk factors early in life, such as obesity, smoking and physical activity, is a high priority because these risk factors are potentially reversible. I am excited with my current results and hope that they will be used to develop health policy. The findings of my research have already gained media attention both nationally and internationally and have received national and international awards. I will continue my research to find the modifiable risk factors and the possible targets for treatment of this incurable disease.



For more information: www.menzies.utas.edu.au

www.YoungTassieScientists.com